Extending Trade Credit as Socially Responsible Companies:
Evidence from the COVID-19 Pandemic

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Using international evidence, this study investigates companies' trade credit decision-making and the impact of their corporate social responsibility (CSR) on these decisions during the COVID-19 crisis. Our results suggest that while firms reduce trade credit extension when facing economic uncertainty during the crisis, firms with strong CSR performance are more likely to extend trade credit due to moral considerations than those firms with weak social performance. These effects are more pronounced in countries with weak institutions, where morality and voluntary socially responsible actions are more relevant. In addition, our results support the business relationship motivation that such "in-kind financing" to their customers allow firms to secure future business opportunities, hence better future operating performance such as higher market share and operating profit margin.

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1. Introduction

When the global economy is going through unprecedented shocks and liquidity becomes restricted, firms must rely on alternative sources of financing. Research finds receiving trade credit plays an essential role, as a substitute or a complement to bank credit, in shoring up short-term finance and in retaining financial flexibility during market disruptions (Schwartz, 1974; Petersen and Rajan,1997; Cunat, 2007; Zhang et al. 2020; Srivastava and Gopalakrishnan, 2021). However, these studies are generally one-sided in that they focus on the benefits of receiving trade credit. Relatively fewer studies focus on the decision making behind the extension of trade credit. Their results suggest the main driving forces of granting trade credit are transaction-cost motivations, business partnerships, and financial relationships (Petersen and Rajan, 1997). More recent studies have attempted to explore non-economic determinants of firms' trade credit policy such as national culture, social trust, or legal system (Fisman and Love, 2003; El Ghoul and Zheng, 2016), as well as corporate social responsibility (CSR) (Xu et al., 2020). In addition, these existing studies are largely restricted to general economic conditions. Firms' trade credit decisions during a time of crisis are relatively unaddressed in the literature. Our study aims to provide evidence to fill this knowledge gap by examining firms' decisions to extend trade credit during the COVID-19 Pandemic, a global crisis that harmed businesses across all industries and that created worldwide financing constraints.

We build our study upon several strands of literature including crisis management, CSR and morality, as well as the financial working capital literature. The Pandemic created exogenous shocks to both suppliers and customers along the supply chain, regardless of geographic location

and economic sector. This provides a unique opportunity to see how economic and non-economic factors jointly influence trade credit provision when the companies providing trade credit themselves are also experiencing financial constraints and facing a liquidity crunch. From an economic perspective, it is a natural move for companies to reduce their trade credit provision in a timely manner to retain their own financial flexibility (*crisis management motivation*). However, CSR and morality considerations may possibly drive companies to adopt a "morally righteous" course of action and be socially responsible, even at the cost of economic gains. It is possible that, during a crisis, those companies that hold a strong CSR belief would be willing to continue the extension of trade credit as a "in-kind financing" to assist their customers to overcome liquidity constraints (*CSR and morality motivation*).

Using a cross-country quarterly firm-level dataset, we empirically examine the behavior of accounts receivables issued by companies to their customers during the Pandemic. We use the Environmental, Social, and Governance (ESG) scores from the Refinitiv database to measure companies' CSR strength. First, consistent with the *crisis management motivation*, we find that during the crisis all firms extend less trade credit. Second, we also find that, consistent with the *CSR and morality motivation,* firms with strong CSR profiles are more liberal in their provision of trade credit even in a time of crisis, after controlling for other determinants of trade credit. We attribute this result to the moral motivation that companies should act to share costs from the unprecedent shock and help their customers to retain financial flexibility. In addition, we find that the relation between CSR and trade credit extension is more pronounced in developed countries, is more related to the Governance components of CSR, is stronger in industries with low degree of reliance on external financial capital and in countries with weaker institutions.

Beyond documenting the positive influence of CSR on firms supplying trade credit during the crisis, we examine the possible externalities for these companies. The extant literature shows that granting trade credit is intertwined with stronger business partnerships and shared growth opportunities. It also shows that society rewards those entities actively engaging in socially responsibility activities ("doing well by doing good"). As a result, we posit that providing this "in-kind financing" to customers during a crisis will in turn be beneficial to the companies supplying the capital. We investigate the ensuing profitability and market share of providers of trade credit capital. We find evidence supporting our hypothesis as those firms record higher future operating performance and enjoy larger subsequent market share.

This study contributes to the literature in several ways. First, the literature on social responsibility has provided ample evidence that local social norms influence business decisions, steering companies toward morality beyond the pursuit of profits. However, this knowledge is typically restricted to large capital spending while little is known about the influence of social norms on short-term financing policy. Our study confirms that these social effects impact firms' capital policies at all levels. Second, investigations into the behavior of trade credit during crisis periods largely focus on the impact of firms receiving trade credit as an alternative source of short-term financing (Klapper et al., 2012; Garcia-Appendini and Montoriol-Garriga, 2013; Restrepo et al., 2019; Costello, 2020; Zhang, 2020). Meanwhile, our study examines the providers of trade credit that the literature does not widely study. It finds them to not only be rational as they restrict the granting of trade credit in response to the crisis but also prone to the influence of CSR. Third, we complement the existing studies about trade credit during prior crisis periods such as Japan's crisis (Fukuda et al., 2006), the Asian crisis (Love et al., 2007), the 2008 financial crisis (Kazmin et al., 2008), and the Argentina, Brazil and Turkey crises (Bastos and Pindado, 2013). Like them,

our study of the COVID-19 Pandemic crisis provides important policy implications, especially for emerging countries where financial controls and institutional environments can be weak and where trade credit remains an important source of short-term financing to firms, leaving them vulnerable to external risks.

The remainder of our paper is organized as follows. Section 2 reviews the literature and develops the hypotheses. Section 3 introduces the sample, methodology, variables, and summary statistics. Section 4 reports the main results and robustness tests. Section 5 concludes.

2. Literature review and hypothesis development

We expect firms will cut their extension of trade credit during a crisis to protect their capital in times of scarcity. We also expect firms with strong CSR performance to be more willing to continue to grant trade credit to customers due to moral motivation. Finally, we expect such an increase in trade credit extension to be positively related to future firm performance. We develop these hypotheses in detail below.

2.1. Trade credit

Financial studies have revealed that effective working capital management is positively related to profitability (Shin and Soenen, 1998; Deloof, 2003; Garcia-Teruel and Martinez-Solano, 2007) and stock returns (Wang, 2019). Among working capital components, trade credit policy has been widely recognized as an important contributor to short-term financing and corporate value.

Several internal and external factors influence firms' issuance and use of trade credit. These range from internal financial constraints, product market competition, macroeconomic conditions (especially changes in monetary policy) to the bargaining power derived from business

relationships. Lewellen et al. (1980) suggest that different capital market imperfections make the use of trade credit relevant to firm value. Firms facing financial constraints are particularly dependent on the use of trade credit to finance their current operations (Petersen and Rajan, 1997; Danielson and Scott, 2004).

Recent studies explore the impact of non-economic factors such as national culture, social trust, legal system (Fisman and Love, 2003; El Ghoul & Zheng, 2016), or CSR (Xu et al., 2020; Zhang et al., 2020) on firms' trade credit policies. Xu et al. (2020) find that firms with higher CSR scores achieve higher trade credit, and Zhang et al. (2020) find that customer firms with better social performance are more likely to receive trade credit from their suppliers. Suppliers view these firms not only as more trustworthy and better able to meet financial obligations but also as more likely to be more successful in the future and as more immune to future negative shocks. Combined, these studies demonstrate the role of CSR on credit policy decision-making.

2.2. COVID-19 and crisis management

The extant crisis management literature views crisis events as "specific, unexpected and non-routine organizationally based events or series of events which create high levels of uncertainty and threat or perceived threat to an organization's high priority" (Seeger et al. 2003), including wars, natural disasters, pandemics, economic and social collapses. This literature mostly focuses on response strategies as well as the speed of reactions in handling crises (Hargis and Watt, 2010; Claeys and Cauberghe, 2012) and suggests the importance of response management during a crisis to mitigating the adverse impacts of the crisis (Heath, 1998). Studies examining the economic impact of the recent Pandemic have documented that financially constrained firms are more likely to be affected adversely during the COVID-19 crisis (Ramelli and Wagner, 2020; Ding et al., 2021). Indeed, firms better prepared to withstand a crisis, i.e., firms with higher cash

holdings, lower debt burden and larger untapped credit lines fared better during the crisis. Within the context of trade credit, one would therefore expect that companies would react promptly to tighten their trade credit policy and restrict the extension of credit to customers to shore up their preparedness to a worsening crisis and thereby preserve their own financial flexibility and corporate value.

2.3. CSR and moral signaling

CSR refers to a firm's commitment to improving societal well-being and serving the interests of all stakeholders beyond the stockholders (Wood, 1991; Kotler and Lee 2005; Bénabou and Tirole, 2006, 2010). Recent studies have applied signaling theory to firms' commitment to CSR. According to signaling theory (Spence 2002; Connelly et al., 2011), firms send signals about their motivations and actions to reduce potential information asymmetries between firms and their stakeholders (Spence, 1973). An observable signal allows a firm to disseminate some unobservable element in values, such as moral conviction (Su et al., 2016; Jago et al., 2022), to related stakeholders (Zerbini, 2017)[1] who reward companies for their prosocial actions.

In the context of morality, prior research has shown that signaling sincere motives to moral issues increases individuals' trust and support for leaders or organizations (Kreps and Monin, 2011; Servaes and Tamayo, 2013; Van Zant and Moore, 2015; Jago et al., 2022). Recent studies suggest that corporations voluntarily choose to behave in a socially responsible manner beyond the requirements of weak regulations that might fail to protect citizens' interests (de Bettignies and Robinson, 2018). By reflecting morality or ethics in their business activities, companies are

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[1] Zerbini (2017) conducts a thorough literature review on CSR initiatives as market signals. Based on the signaling mechanism, firms' CSR initiatives (e.g., ethical programs and press release) can signal the ethical nature of the companies to other stakeholders when such information is hard to be perceived by outsiders.

perceived positively by the public hence their reputations are improved (Murphy 2005; Stanaland et al., 2011).

CSR activities strengthen not only the reputation of the firms but also their operations. The literature has documented many economic benefits to firms addressing moral, ethical, and social issues in increased valuation, better performance, and reduced cost of capital among other benefits (Gillan et al., 2021). For example, Bénabou and Tirole (2010) observe that firms with stronger CSR profiles are more resilient and exhibit different systematic risk exposures during crisis periods. Similarly, Albuquerque et al. (2019) argue that, through product differentiation, firms with stronger CSR profiles face lower price elastic demand. These studies point that CSR activities increase shareholder wealth by simultaneously increasing cash flows and decreasing the cost of capital for firms with stronger CSR profiles. However, CSR activities may generate adverse effect to firms' performance. Becchetti et al. (2015) find that strong CSR profiles increase firms' idiosyncratic risk. They argue that their results reflect a loss of flexibility in responding to negative shocks caused by firms' commitment to CSR activities.

In the context of the COVID-19 Pandemic crisis, we draw from the preceding literatures on trade credit, crisis management, signaling theory and morality to craft our hypotheses. First, we posit that well managed firms will preserve capital during a crisis. Second, we suggest that a trade credit supplier with strong CSR performance can use the extension of trade credit as a moral signal to reveal its willingness to uphold its moral values despite the critical market conditions[2]. Finally, we propose that such behaviors during crisis time will subsequently benefit companies as their trade partners become more cooperative in maintaining future business relationships and that they

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[2] Chaudhry and Wald (2022) introduce the concept of "self-sacrificing signals." This type of signals involves signalers "voluntarily incurring some cost to their self-interest" in terms of "spending or giving up resources like time, effort, emotional energy, or money" (p. 3).

will generally be more positively received by the economy at large. We summarize the hypotheses as follows:

Hypothesis 1: During the Pandemic, firms are less willing to issue trade credit to their customers, holding other things constant.

Hypothesis 2: During the Pandemic, firms with strong CSR are more willing to issue trade credit to their customers, holding other things constant.

Hypothesis 3: Firms with strong CSR supplying trade credit show better future financial performance, holding other things constant.

3. Data and research design

3.1. Data and sample selection

This study uses data from various sources including Compustat Global, the World Bank, Refinitiv, and Bloomberg. Firm-level quarterly accounting data from 2018Q1 to 2022Q2 are retrieved from Compustat Global for non-U.S. firms and from Compustat for U.S. firms. We collect macroeconomic data from Bloomberg and country-specific governance data from the World Bank[3]. From Refinitiv, we collect firms' ESG scores that measures performance in three dimensions: Environmental, Social, and Governance. Along the Environmental dimension, a company is evaluated based on the activities in reducing environmental emissions, improving efficiency in using natural resources, and developing eco-efficient products. The Social dimension assesses a company's engagement in improving fundamentals of human rights, public health, as well as business ethics. In terms of Governance, a company is evaluated based on its governing mechanisms which protect the best interests of its stakeholders.

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[3] https://info.worldbank.org/governance/wgi/

3.2. Research design

We conduct a difference-in-difference analysis to examine the effect of 1) the Pandemic and 2) CSR on firms' trade credit extension during the Covid-19 Pandemic. Specifically, we use the following model:

$$TC_{i,t} = \alpha + \beta_1 CSR_i + \beta_2 Pandemic + \beta_3 CSR_i \times Pandemic + \beta_4 Size_{i,t} + \beta_5 Leverage_{i,t} +$$

$$\beta_6 Tangibility_{i,t} + \beta_7 Inventory_{i,t} + \beta_8 Cashflow_{i,t} + \beta_9 Profitability_{i,t} + \beta_{10} \ln(GDP/$$

$$Capita)_{c,t} + C + I + T + \varepsilon_{i,t}, \tag{1}$$

where subscripts i and t represent firm and quarter respectively. $TC_{i,t}$ measures the trade credit (Account Receivables divided by Sales) that company i grants to its customers in quarter t. Alternatively, we use net trade credit which is computed as (Account Receivables minus Accounts Payables) divided by Total Assets. Pandemic is a dummy variable that equals to one for quarters from 2020Q2 to 2022Q2, and zero otherwise. CSR is a dummy variable that equals to one for ESG scores above median and zero otherwise.

We include a set of firm-level control variables. Size is the logarithm of a firm's total assets minus accounts receivables, Leverage is total debt divided by total assets, Tangibility is total PPE divided by total assets, Inventory is total inventory divided by cost of goods sold, Cash Flow is measured as (operating income plus depreciation) divided by total assets, Profitability is estimated as net income divided by sales. We also include logarithm of GDP per capita to control for the heterogeneity in country-level macroeconomic condition across countries. C is a vector of country fixed effects, I is a vector of industry fixed effects based on Fama and French's (1997) 48 industry classifications, and T is a vector of quarter fixed effects. We also conduct subsample tests based on various country characteristics such as country economic development, governance indicators

and national culture. A finding that β2 is negative and significant would support Hypothesis 1, and a finding that β3 is positive and significant would support Hypothesis 2.

To examine the relationship between companies' performance and trade credit policy driven by the CSR motivation, we use the following model:

$$Performance_{i,t+1} = \alpha + \beta_1 Performance_{i,t} + \beta_2 Pandemic + \beta_3 TC_{i,t} + \beta_4 TC_{i,t} \times$$

$$Pandemic + \beta_5 Size_{i,t} + \beta_6 Leverage_{i,t} + \beta_7 Sale\ Growth_{i,t} + \beta_8 Cashflow_{i,t} + \beta_9 \ln(GDP/$$

$$Capita)_{c,t} + C + I + T + \varepsilon_{i,t}, \tag{2}$$

where Performance$_{i,t+1}$ measures company i's performance in quarter t+1, measured by operating profitability (Earnings Before Interest and Taxes divided by Sales). Alternatively, we use a company's product market performance measured by percentage of the firm's sales to the total sales of firms in the same industry. We run regressions using subsamples based on the heterogeneity in CSR strength. Specifically, we partition the full sample based on the CSR performance score separating the sample for both the top and the bottom quartiles of CSR score and run regressions separately. A finding that β4 is significantly higher for the subsample of high CSR score would support Hypothesis 3.

3.3. Sample Description

In Table 1, Panel A presents the coverage of our sample by country during the 2018Q1 to 2022Q2 period. Companies from the U.S. have the largest representation with more than 1,700 firms, followed by China then Great Britain and Australia. At the other end of the spectrum, Peru, Greece, Colombia, Luxembourg, and Portugal have the least coverage with fewer than 10 firms included in the sample each. Panel B reports the summary statistics of the variables used in our analysis while Panel C reports the mean total score of CSR as well as the mean score across several dimensions of CSR. Panel C reports the statistics not only for the full sample but also across our

developed countries and developing countries subsamples. Although in general the CSR scores are higher in developed countries, it is not true for all dimensions. Panel C reveals that the mean CSR scores for Workforce and Governance are statistically higher in developing countries sample firms than in developed countries sample firms.

[Insert Table 1 here]

4. Results

Table 2 presents results of model (1). Our main variables of interest are the Pandemic dummy and its interaction with the CSR Dummy. Using the extension of trade credit as the dependent variable, Column (1) reports the results using the full sample and shows that, during the Pandemic, firms extend less trade credit to their customers. This finding supports our crisis management hypothesis, H1. In the face of restricted access to capital in the economy, firms react by preserving their own capital and alter their trade credit policy. We also see that the interaction coefficient between the CSR and Pandemic dummies is statistically significant and positive. This finding supports our morality hypothesis, H2. At a time when all firms are acting to preserve their capital, firms with higher CSR score, that is, firms that act on behalf of all stakeholders, are more likely to continue to extend more trade credit. The results for the control variables are in line with expectations. Firms that are more tangible extend less trade credit as they tend to be more capital intensive while firms with higher cash-flow extend more trade credit as are firms that are larger and more levered.

[Insert Table 2 here]

We replicate the analysis of Column (1) for our developing and developed countries subsamples and report the results in Columns (2) and (3). We observe differences in how firms react across the subsamples. The results in Column (2) reveal that in developed countries, firms

with higher CSR Score extend more trade credit. The results in Column (3) reveal that firms in developing countries during the Pandemic reduce trade credit significantly to preserve capital, but firms with higher CSR Score do not extend more trade credit. The pattern of these differences in behavior suggests that there are overarching capital market conditions, namely general ease of access to capital, that impact firms' behavior in the face of a crisis. Firms in developing countries rely more on trade credit as alternative source of financing due to the relatively less developed capital markets. Columns (4) to (6) repeat the regressions from Columns (1) to (3) using net trade credit as the dependent variable. The results are generally consistent with Columns (1) to (3), including that the positive effect of CSR on trade credit extension during the Pandemic is more pronounced in developed countries.

[Insert Table 3 here]

In Table 3, we report the results of regressions based on model (1) using various CSR components. We replicate the analysis of model (1) using the whole sample but design a new set of CSR component dummy variables where each dummy variable is equal to 1 if the company's score in that dimension is greater than the median. We focus on components in both the Social and Governance pillars as they are more likely related to the financial decision-making of firms in times of crisis than Environmental pillar components such as resource use or emissions. In Panel A (Panel B) of Table 3, we use trade credit (net trade credit) as the dependent variable. In Panel A, we find consistently that during the Pandemic, firms lower their extension of trade credit as a response to the crisis. More interestingly, we find that the impact of CSR behavior is not limited to a single or a few components but rather than CSR behavior are pervasively influencing firms to continue to extend credit during the Pandemic. In Panel A, all but one component (Community) are positively driving firms to provide more trade credit to their customers. The magnitude of these

effects is stronger for the components under the Governance pillar. This indicates that firms that are better governed, i.e., firms with less entrenched top management, firms with more independent governance, and firms with better social responsibility accountability, are respectively more likely to act in a morally responsible manner in times of crisis. Panel B reports results with similar tenor.

Results in Table 1 reveal that general market conditions may influence firms' behavior. To test this, we investigate both industry and country conditions that may impact firms' response to the Pandemic-induced financial constraints. We start by investigating industry conditions in Table 4 and follow by investigating country conditions in Tables 5 and 6.

[Insert Table 4 here]

In Table 4, we focus our analysis on an industry's degree of reliance on external financial capital (Rajan and Zingales, 1998). Specifically, Rajan and Zingales (1998) measure an industry's reliance on external financial capital as the ratio of (capital expenditures minus cash flow from operations) to capital expenditures. They find that growth for firms with high external financial capital dependence (EFD) is related to the level of market development. Therefore, firms with high reliance on external financial capital are more adept at using resources available in the marketplace. Meanwhile, firms with low reliance on external financial capital are less frequent participants in external financial markets and are less adept at tapping alternative sources of capital. In Columns (1) and (2) of Table 4, we replicate the regressions using model (1) across two sub-samples, one for firms in industries with high EFD and one for firms in industries with low EFD. The results show that it is those firms in industries with low EFD that alter their behavior during the Pandemic. Firms in these industries are less prone to access the external financial markets and therefore react to the crisis by adjusting their provision of trade credit, a purely internal decision. They significantly lower their extension of trade credit. The CSR motivated trade credit extension

is also in evidence in the low EFD subsample. Columns (3) and (4) replicate the analysis for net trade credit and reveals similarly patterned results.

Tables 5 and 6 focus on country-level characteristics[4]. In Table 5, we investigate the institutional environment in the countries in our sample while in Table 6, we investigate the cultural environment in those countries. We rely on the World Bank's Worldwide Governance Indicators (WGI) to measure a country's quality of public governance. The COVID-19 Pandemic was not only devastating in its health effects but was also divisive in how people reacted to its potency and how they viewed solutions to its induced financial crisis. Given the unique strain to national harmony that the Pandemic presented, we use those indicators that would reflect how much agency citizens and the business community had in each country's response to the Pandemic. As such, we expect that fear of diminishing national unity and increasing business disruptions would be stronger in countries with lower control of corruption, lower political stability and lower voice and accountability. Table 5 presents results of running the regression of model (1) across sub-samples based on high or low levels of the selected WGIs[5]. The results in Columns (2), (4), and (6) show that, in those countries with low accountability, trade credit extension is reduced the most as the business community is less likely to be able to influence the government's response and therefore the crisis management incentive is the most in evidence. These results also show that the CSR morality impact is evident only in the low governance quality sub-samples. This confirms that, in a vacuum of strong institutions, socially responsible businesses respond to the need of the country and supply trade credit more readily to their customers. This result is in line with the

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[4] For the sake of brevity, we only present the results for our trade credit variable. We replicated the analyses using our net trade credit variable and the tenor is similar. These results are available upon request.

[5] WGI includes measures along six dimensions including Control of Corruption, Political Stability, Voice and Accountability, Government Effectiveness, Regulatory Quality and Rule of Law. We report the significant results along the Corruption, Political Stability, Voice and Accountability dimensions. We find insignificant results along the Government Effectiveness, Regulatory Quality and Rule of Law dimensions so we do not report them for the sake of brevity.

findings of de Bettignies and Robinson (2018) that when institutionally driven social responsibility is lacking, the business community rises to meet the demand for responsibility.

[Insert Table 5 here]

We next investigate the impact of the cultural environment in the countries in our sample. We rely on Hofstede's (2001) dimensions of national culture. Specifically, we use the Individualism (IDV) and the Uncertainty Avoidance (UAI) dimensions. The IDV measures the relative degree to which people in a society are integrated into groups. In other words, in highly individualistic societies, people only relate loosely with others. In less individualistic societies, collectivism takes a stronger role and people relate more closely to the group. The UAI measures the relative attitude of individuals in each country to structured or unstructured situations. That is, in countries with high UAI, individuals are more anxious when faced with uncertainty and risk while in countries with low UAI, individuals are more likely to take risks. Table 6 presents results of running the regression of model (1) across sub-samples based on high or low levels of the selected cultural dimensions.

[Insert Table 6 here]

The results across columns in Table 6 show that the immediate reaction to the Pandemic of curtailing the extension of trade credit is universal and not dependent on national culture. The CSR motivation for continuing to extend trade credit during the Pandemic is limited to some countries. The results show that it is in those countries with High Individualism and High Uncertainty Avoidance that CSR has the strongest effect on the extension of trade credit. It is striking that in countries with high IDV, one would expect people not to help others in times of crisis as social ties are only to those closest to us. Similarly, in countries with high UAI, one would expect people to preserve their resources and guard them more closely in the face of the

uncertainties induced by the Pandemic. Here lies therefore in our results the strength of CSR. It is in those environments that are not culturally conducive to lend a helping hand, that commitment to CSR results in extending critical financing to one's customers.

Our preceding results show mounting evidence that CSR, during the COVID-19 Pandemic, lead firms in various countries, industries, regulatory and cultural environments to extend trade credit more generously when access to alternate financing sources became scarce. We now turn to test if doing good was also good for business during that period. We measure how good it was by investigating the effect of extending trade credit during the pandemic on future operating performance and future market share. We use model (2) as the specification of our tests.

[Insert Table 7 here]

Table 7 shows that the coefficients for the interaction variable Trade Credit * Pandemic are significant only for the subsample of firms with CSR scores in the upper quartile of the sample. That is, only for those firms with highest CSR did the extension of trade credit benefit both their operating performance and market share. It is those firms that extended more trade credit as per our earlier analysis. These results suggest support for our Hypothesis 3. High CSR score firms are rewarded for their altruistic behavior during the Pandemic.

[Insert Table 8 here]

To further cement the interpretation of the results of Table 7, we run additional tests using a triple interaction to directly relate CSR and trade credit extension to the Pandemic period and their impact on performance. Table 8 reports these results. The tests are performed on both profitability and market share and are performed for our developed / developing and High EFD / Low EFD subsamples. We find that the strength of the results from Table 7 are concentrated in firms with higher CSR score in that we find significantly positive coefficients for our triple

interaction variable. This significance is evident for both profitability and market share in developed countries and in industries with low EFD, mirroring our earlier results. These additional tests lend more credence to Hypothesis 3.

5. **Conclusion**

This research enriches the understanding of the effect of CSR on corporate practices in the context of trade credit. Our study provides vivid evidence that morality plays an important role in business decision making and that practicing CSR is not solely altruistic good-doing but is also beneficial not only for society but for the companies embracing their responsibilities. In our study, we find that firms with strong CSR are seen more inclined to grant trade credit during the crisis. This behavior leads to dual benefits: on the one hand, these firms' customers gain additional financial flexibility to help them overcome the liquidity constraints engendered by the crisis, and, on the other hand, firms supplying this trade credit are rewarded for extending such "in-kind financing", as seen by the positive effects to their future performance. Additionally, further analyses illustrate that CSR is more relevant in those instances where morality is most needed. In the face of idiosyncratic industry, institutional and cultural deficiencies, firms with stronger CSR overcame natural resistance and delivered the necessary financing to their customers to maintain the stability of their trading partners.

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Table 1: Summary statistics

Panel A: Sample distribution across countries

Country Name	Number of firms	Developed / Developing
Peru	6	Developing
Greece	8	Developing
Colombia	9	Developing
Luxembourg	9	Developed
Portugal	9	Developed
Israel	11	Developed
Philippines	11	Developing
Poland	12	Developed
Saudi Arabia	12	Developing
Chile	15	Developing
Argentina	18	Developing
Ireland	20	Developed
Austria	22	Developed
Mexico	22	Developing
Russia	22	Developing
Indonesia	28	Developing
Turkey	28	Developing
Belgium	30	Developed
Finland	33	Developed
New Zealand	33	Developed
Denmark	34	Developed
Singapore	35	Developed
Norway	40	Developed
Netherlands	41	Developed
Spain	43	Developed
Malaysia	45	Developing
Thailand	49	Developing
Brazil	50	Developing
Italy	51	Developed
South Africa	80	Developing
Switzerland	83	Developed
Sweden	88	Developed
India	97	Developing
Korea South	110	Developed
France	114	Developed
Germany	122	Developed
Australia	255	Developed
Great Britain	265	Developed
China	439	Developing
U.S.A.	1,771	Developed

Panel B: Summary Statistics

Variable	Obs	Mean	SD	Median	P5	P95
Trade Credit (AR/Sales)	69,206	0.72	0.65	0.59	0.07	1.84
Net Trade Credit (AR-AP)/Assets	67,840	0.92	1.05	0.57	0.11	3.07
CSR Score	69,206	41.11	19.36	38.61	13.03	75.37
Size	72,220	36,178.14	91,161.91	3,212.40	112.58	381,028.36
Leverage	69,206	0.26	0.18	0.25	0.00	0.61
Inventory (Inv / COGS)	651,50	1.58	2.39	0.83	0.01	8.49
Tangibility	71,884	0.26	0.21	0.19	0.02	0.72
Cash Flow	72,096	0.01	0.04	0.02	-0.09	0.06
Profitability	69,206	0.06	0.45	0.14	-0.81	0.45
Market Share	69,206	0.13	0.26	0.02	0.00	0.78
Operating ROA	69,206	0.02	0.04	0.03	-0.08	0.07

Panel C: CSR performance across countries

Mean Scores	Full Sample (4,170 firms)	Developing Countries (1,134 firms)	Developed Countries (3,036 firms)
Overall CSR Score	41.11	40.79	41.23***
Social Pillar			
Community	50.98	39.77	55.19***
Human Resource	31.90	27.97	33.37***
Product Responsibility	44.66	41.78	45.74***
Workforce	50.81	53.54***	49.79
Governance Pillar			
Management	51.44	50.56	51.78***
Governance	48.88	49.41***	48.68
Social Responsibility	45.02	40.26	46.80***

Note(s): The table presents the sample distribution for data used in our analysis. We use quarterly accounting data from Compustat Global during the 2018Q1 to 2022Q2 period. Our sample excludes firms that are regulated (SIC codes 1000–1400, and 4900–4999) or belong to the financial sector (SIC codes 6000–6999).

Table 2: Trade credit and CSR

	Trade credit			Net trade credit		
	(1)	(2)	(3)	(4)	(5)	(6)
	Full sample	Developed	Developing	Full sample	Developed	Developing
CSR Dummy	-0.036**	-0.007	-0.080**	-0.004	-0.006**	0.003
	(-2.053)	(-0.371)	(-2.235)	(-1.439)	(-1.967)	(0.700)
Pandemic	-0.022**	-0.015	-0.092***	-0.001	0.003**	-0.000
	(-2.289)	(-1.324)	(-5.098)	(-0.576)	(1.996)	(-0.139)
CSR x Pandemic	0.020*	0.009***	0.024	0.002*	0.004***	0.001
	(1.958)	(2.786)	(1.105)	(1.767)	(3.017)	(0.347)
Size	0.024***	0.022***	-0.016	0.004***	0.003***	0.015***
	(4.144)	(3.596)	(-1.079)	(5.234)	(3.835)	(9.120)
Leverage	0.190***	0.127***	0.263**	0.011*	0.004	0.039***
	(4.096)	(2.654)	(2.247)	(1.875)	(0.532)	(2.740)
Inventory	0.014**	0.016*	-0.002	-0.001	-0.003***	0.002**
	(2.106)	(1.697)	(-0.313)	(-1.641)	(-2.730)	(2.089)
Tangibility	-0.440***	-0.494***	-0.402***	-0.059***	-0.067***	-0.043***
	(-9.195)	(-8.712)	(-3.970)	(-10.012)	(-9.467)	(-3.585)
Cash flow	0.977***	0.638***	1.379***	0.186***	0.184***	0.210***
	(12.692)	(7.230)	(9.344)	(17.804)	(14.162)	(11.302)
Profitability	-2.871***	-2.459***	-4.529***	0.334***	0.331***	0.418***
	(-13.134)	(-10.461)	(-8.990)	(12.408)	(10.986)	(6.638)
ln(GDP/capita)	0.049	-0.409***	-0.101***	-0.001	0.071***	0.004
	(0.987)	(-6.899)	(-3.937)	(-0.218)	(8.711)	(1.436)
Constant	-0.099	5.101***	1.753***	-0.017	-0.756***	-0.196***
	(-0.204)	(7.925)	(5.595)	(-0.275)	(-8.518)	(-5.746)
Industry FE	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Quarter FE	Y	Y	Y	Y	Y	Y
Observations	63,197	45,992	17,205	63,662	46,437	17,225
Adjusted R-squared	0.263	0.185	0.335	0.361	0.362	0.373

Note(s): The table presents the results of model (1). Pandemic is a dummy variable that equals to one for quarters from 2020Q2 to 2022Q2, and zero otherwise. CSR is a dummy variable that equals to one for ESG scores above median and zero otherwise. The main variable of interest is the interaction of Pandemic dummy with the CSR Dummy. In Columns (1)-(3), the dependent variable is the extension of trade credit. In Columns (4)-(6), the dependent variable is net trade credit. All regressions include industry, country and quarter fixed effects. t-statistics are reported in parentheses. ***, **, and * note significance at the 1%, 5%, and 10% levels, respectively.

Table 3: CSR components

Panel A: Trade credit

	Social Pillar			Governance Pillar		
	(1)	(2)	(3)	(4)	(5)	(6)
	Comm.	Prod. Resp.	Workforce	Mgmt	Gov.	Social Resp.
CSR Component	-0.049***	-0.006	-0.049**	-0.023	-0.018	-0.058***
	(-2.906)	(-0.344)	(-2.563)	(-1.487)	(-1.136)	(-3.217)
Pandemic	-0.016*	-0.021**	-0.020**	-0.025**	-0.025**	-0.020**
	(-1.738)	(-2.178)	(-2.112)	(-2.551)	(-2.504)	(-2.134)
CSR Component x Pandemic	0.010	0.019**	0.017*	0.026***	0.026***	0.017*
	(1.050)	(1.979)	(1.717)	(2.602)	(2.617)	(1.700)
Size	0.031***	0.025***	0.030***	0.026***	0.026***	0.031***
	(5.206)	(4.552)	(5.141)	(4.769)	(4.629)	(5.301)
Leverage	0.184***	0.183***	0.180***	0.183***	0.183***	0.182***
	(4.018)	(3.994)	(3.935)	(4.002)	(3.998)	(3.972)
Inventory	0.015**	0.015**	0.015**	0.015**	0.015**	0.015**
	(2.193)	(2.232)	(2.263)	(2.230)	(2.233)	(2.205)
Tangibility	-0.412***	-0.411***	-0.412***	-0.411***	-0.411***	-0.411***
	(-8.702)	(-8.699)	(-8.704)	(-8.701)	(-8.689)	(-8.700)
Cash flow	0.998***	0.996***	0.990***	0.997***	0.997***	0.993***
	(13.101)	(13.041)	(12.930)	(13.071)	(13.055)	(12.998)
Profitability	-3.992***	-4.045***	-4.030***	-4.035***	-4.037***	-4.038***
	(-15.592)	(-15.869)	(-15.780)	(-15.839)	(-15.861)	(-15.813)
ln(GDP/capita)	0.039	0.045	0.040	0.030	0.032	0.047
	(0.826)	(0.930)	(0.827)	(0.634)	(0.659)	(0.969)
Constant	-0.061	-0.069	-0.060	0.054	0.046	-0.146
	(-0.130)	(-0.145)	(-0.127)	(0.113)	(0.098)	(-0.305)
Industry FE	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Quarter FE	Y	Y	Y	Y	Y	Y
Observations	63,197	63,197	63,197	63,197	63,197	63,197
Adjusted R-squared	0.273	0.272	0.273	0.272	0.272	0.273

Panel B: Net trade credit

	Social Pillar			Governance Pillar		
	(1)	(2)	(3)	(4)	(5)	(6)
	Comm.	Prod. Resp.	Workforce	Mgmt	Gov.	Social Resp.
CSR Component	-0.000	0.004*	-0.001	-0.002	-0.003	-0.002
	(-0.181)	(1.856)	(-0.468)	(-0.987)	(-1.110)	(-0.748)
Pandemic	0.001	0.001	0.000	-0.000	-0.001	0.001
	(0.955)	(0.525)	(0.097)	(-0.259)	(-0.650)	(0.451)
CSR Component x Pandemic	-0.001	0.018*	0.001	0.002*	0.003**	0.004***
	(-0.887)	(1.878)	(1.079)	(1.737)	(2.559)	(2.207)
Size	0.005***	0.004***	0.004***	0.004***	0.004***	0.005***
	(5.501)	(5.235)	(5.543)	(5.836)	(5.805)	(5.599)
Leverage	0.010	0.009	0.009	0.010	0.010	0.009
	(1.560)	(1.544)	(1.546)	(1.561)	(1.560)	(1.548)
Inventory	-0.001*	-0.001*	-0.001*	-0.001*	-0.001*	-0.001*
	(-1.880)	(-1.871)	(-1.875)	(-1.883)	(-1.882)	(-1.887)
Tangibility	-0.057***	-0.057***	-0.057***	-0.057***	-0.057***	-0.057***
	(-9.576)	(-9.623)	(-9.577)	(-9.586)	(-9.574)	(-9.571)
Cash flow	0.195***	0.194***	0.195***	0.195***	0.195***	0.195***
	(18.427)	(18.390)	(18.374)	(18.440)	(18.434)	(18.399)
Profitability	0.253***	0.250***	0.252***	0.253***	0.253***	0.252***
	(8.538)	(8.464)	(8.513)	(8.547)	(8.544)	(8.511)
ln(GDP/capita)	-0.003	-0.002	-0.002	-0.003	-0.002	-0.002
	(-0.519)	(-0.339)	(-0.270)	(-0.393)	(-0.378)	(-0.343)
Constant	0.002	-0.006	-0.013	-0.006	-0.006	-0.010
	(0.026)	(-0.104)	(-0.208)	(-0.092)	(-0.103)	(-0.156)
Industry FE	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Quarter FE	Y	Y	Y	Y	Y	Y
Observations	63,662	63,662	63,662	63,662	63,662	63,662
Adjusted R-squared	0.352	0.352	0.352	0.352	0.352	0.352

Note(s): The table presents the results of model (1) using various CSR components. Pandemic is a dummy variable that equals to one for quarters from 2020Q2 to 2022Q2, and zero otherwise. CSR Company is a dummy variable that equals to one for CSR scores above median and zero otherwise. Columns (1)-(3) report the results based on CSR component measured along social pillar. Columns (4)-(6) report the CSR component measured along the governance pillar. All regressions include industry, country and quarter fixed effects. t-statistics are reported in parentheses. ***, **, and * note significance at the 1%, 5%, and 10% levels, respectively.

Table 4: Trade credit and CSR: industry characteristics

	Trade Credit		Net Trade Credit	
	(1)	(2)	(3)	(4)
	High EFD	Low EFD	High EFD	Low EFD
CSR Dummy	-0.022	-0.051**	0.004	-0.007*
	(-0.569)	(-2.496)	(0.883)	(-1.908)
Pandemic	-0.020	-0.035***	0.002	-0.004**
	(-1.011)	(-3.247)	(1.212)	(-2.518)
CSR x Pandemic	-0.003	0.030***	-0.004**	0.005***
	(-0.126)	(2.737)	(-2.223)	(3.301)
Size	0.004	0.039***	-0.001	0.006***
	(0.384)	(5.493)	(-0.631)	(5.595)
Leverage	0.392***	0.012	0.030***	-0.015*
	(4.899)	(0.214)	(3.538)	(-1.851)
Inventory	0.027***	-0.011	-0.001	-0.006***
	(2.604)	(-1.309)	(-0.699)	(-5.732)
Tangibility	-0.342***	-0.723***	-0.066***	-0.112***
	(-5.240)	(-14.477)	(-9.364)	(-16.939)
Cash flow	1.021***	0.802***	0.210***	0.157***
	(7.341)	(9.564)	(12.422)	(13.117)
Profitability	-3.128***	-5.311***	0.356***	0.031
	(-8.559)	(-14.271)	(8.866)	(0.613)
ln(GDP/capita)	0.018	0.052	-0.027**	0.004
	(0.195)	(0.908)	(-2.374)	(0.517)
Constant	0.526	0.124	0.311**	-0.034
	(0.532)	(0.224)	(2.523)	(-0.469)
Industry FE	Y	Y	Y	Y
Country FE	Y	Y	Y	Y
Quarter FE	Y	Y	Y	Y
Observations	15,855	47,342	15,855	47,342
Adjusted R-squared	0.167	0.216	0.388	0.216

Note(s): The table presents the results of model (1) based on industry characteristics. EFD is the degree of reliance on external financial capital (Rajan and Zingales, 1998). The full sample is separated into two subsamples based on median of EFD measure: High(low) EFD subsample includes industries with EFD measure above (below or equal to) sample median. Pandemic is a dummy variable that equals to one for quarters from 2020Q2 to 2022Q2, and zero otherwise. CSR is a dummy variable that equals to one for ESG scores above median and zero otherwise. The main variable of interest is the interaction of Pandemic dummy with the CSR Dummy. In Columns (1)-(2), the dependent variable is the extension of trade credit. In Columns (3)-(4), the dependent variable is net trade credit. All regressions include industry, country and quarter fixed effects. t-statistics are reported in parentheses. ***, **, and * note significance at the 1%, 5%, and 10% levels, respectively.

Table 5: Trade credit and CSR: country characteristics - institutional environment

	(1)	(2)	(3)	(4)	(5)	(6)
	Control of Corruption HIGH	Control of Corruption LOW	Political Stability HIGH	Political Stability LOW	Voice and Accountability HIGH	Voice and Accountability LOW
CSR Dummy	-0.071**	-0.043	-0.080**	0.060	-0.063**	0.033
	(-2.446)	(-0.689)	(-2.437)	(0.953)	(-2.228)	(0.595)
Pandemic	-0.016	-0.049	-0.019	-0.041	-0.019	-0.158***
	(-0.647)	(-1.305)	(-0.630)	(-0.921)	(-0.756)	(-6.312)
CSR x Pandemic	0.002	0.105**	0.001	0.103*	0.000	0.037***
	(0.075)	(2.186)	(0.036)	(1.855)	(0.016)	(3.944)
Size	0.025**	-0.044*	0.036***	-0.015	0.027***	-0.025
	(2.512)	(-1.787)	(3.474)	(-0.650)	(2.923)	(-0.936)
Leverage	0.308**	0.218	0.255*	0.233	0.232**	0.583***
	(2.577)	(1.274)	(1.909)	(1.242)	(2.011)	(2.972)
Inventory	0.008	0.052***	0.016	0.028**	0.001	0.015
	(0.573)	(3.104)	(1.013)	(2.187)	(0.068)	(1.167)
Tangibility	-0.588***	-0.261	-0.663***	-0.429**	-0.620***	-0.127
	(-5.843)	(-1.648)	(-5.765)	(-2.499)	(-6.643)	(-0.736)
Cash flow	0.567***	0.584**	0.499***	0.910***	0.410**	2.019***
	(3.579)	(2.436)	(3.832)	(3.643)	(2.548)	(9.203)
Profitability	-4.769***	-6.021***	-5.032***	-4.916***	-4.579***	-6.422***
	(-8.282)	(-5.656)	(-8.049)	(-4.347)	(-8.374)	(-8.003)
ln(gdp/capita)	0.230***	-0.115	0.010	0.053	0.192***	-0.059
	(3.279)	(-1.323)	(0.084)	(0.269)	(3.009)	(-0.446)
Constant	-1.811**	1.653*	0.625	-0.019	-1.374**	1.492
	(-2.366)	(1.957)	(0.499)	(-0.010)	(-1.976)	(1.223)
Industry FE	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Quarter FE	Y	Y	Y	Y	Y	Y
Observations	13,881	3,754	10,012	3,146	15,276	7,907
Adjusted R-squared	0.271	0.461	0.295	0.433	0.262	0.442

Note(s): The table presents the results of model (1) based on country characteristics measured by the World Bank country governance index (WGI). Along each country governance dimension, the full sample is separated into two subsamples based on median value of the WGI measure: High(low) subsample includes countries with WGI measure above (below or equal to) sample median. Pandemic is a dummy variable that equals to one for quarters from 2020Q2 to 2022Q2, and zero otherwise. CSR is a dummy variable that equals to one for ESG scores above median and zero otherwise. The main variable of interest is the interaction of Pandemic dummy with the CSR Dummy. The dependent variable is the extension of trade credit. All regressions include industry, country and quarter fixed effects. t-statistics are reported in parentheses. ***, **, and * note significance at the 1%, 5%, and 10% levels, respectively.

Table 6: Trade credit and CSR: country characteristics - national cultural environment

	(1)	(2)	(3)	(4)
	Individualism	Individualism	Uncertainty Avoidance	Uncertainty Avoidance
	HIGH	LOW	HIGH	LOW
CSR Dummy	-0.031	-0.037	-0.083**	-0.020
	(-1.600)	(-0.809)	(-2.065)	(-0.493)
Pandemic	0.013	-0.108***	-0.049**	-0.125***
	(1.118)	(-5.523)	(-2.351)	(-6.048)
CSR x Pandemic	0.022*	0.039	0.048**	0.024
	(1.844)	(1.515)	(2.322)	(1.021)
Size	0.015**	0.017	0.032**	0.019
	(2.042)	(0.889)	(2.542)	(1.324)
Leverage	0.193***	0.484***	-0.057	0.481***
	(3.881)	(3.118)	(-0.515)	(3.557)
Inventory	0.018	0.017*	0.012	0.013
	(1.641)	(1.702)	(1.011)	(1.126)
Tangibility	-0.419***	-0.312**	-0.455***	-0.352***
	(-7.345)	(-2.459)	(-4.178)	(-3.094)
Cash flow	0.808***	1.787***	0.415**	1.655***
	(8.528)	(9.927)	(2.497)	(9.759)
Profitability	-3.016***	-6.911***	-5.334***	-5.822***
	(-10.283)	(-10.159)	(-7.572)	(-9.603)
ln(GDP/capita)	0.194***	0.074	0.005	0.065
	(3.382)	(0.832)	(0.068)	(0.872)
Constant	-1.356**	-0.388	0.259	-0.016
	(-2.155)	(-0.417)	(0.367)	(-0.023)
Industry FE	Y	Y	Y	Y
Country FE	Y	Y	Y	Y
Quarter FE	Y	Y	Y	Y
Observations	36,669	13,658	14,109	14,858
Adjusted R-squared	0.202	0.400	0.299	0.389

Note(s): The table presents the results of model (1) based on country characteristics measured by country culture index Hofstede's (2001). Specifically, we use the Individualism (IDV) and the Uncertainty Avoidance (UAI) dimensions Along each country cultural dimension, the full sample is separated into two subsamples based on median value of the cultural measure: High(low) subsample includes countries with cultural measure above (below or equal to) sample median. Pandemic is a dummy variable that equals to one for quarters from 2020Q2 to 2022Q2, and zero otherwise. CSR is a dummy variable that equals to one for ESG scores above median and zero otherwise. The main variable of interest is the interaction of Pandemic dummy with the CSR Dummy. The dependent variable is the extension of trade credit. All regressions include industry, country and quarter fixed effects. t-statistics are reported in parentheses. ***, **, and * note significance at the 1%, 5%, and 10% levels, respectively.

Table 7: Performance

	(1) Operating Profitability Full sample	(2) Operating Profitability CSR > P75	(3) Operating Profitability CSR < P25	(4) Market Share Full Sample	(5) Market Share CSR > P75	(6) Market Share CSR < P25
Trade Credit	-0.001*	-0.000	-0.001	0.004***	0.004***	0.000
	(-1.919)	(-0.601)	(-1.508)	(3.207)	(2.936)	(1.221)
Pandemic	0.004***	0.005***	0.003***	0.008***	0.009***	0.002***
	(12.723)	(10.310)	(4.355)	(6.356)	(6.683)	(3.410)
Trade Credit x Pandemic	0.001***	0.002***	0.001	0.001*	0.002*	0.000
	(3.616)	(3.802)	(1.431)	(1.997)	(1.849)	(0.145)
Lagged Performance	0.616***	0.576***	0.614***	0.922***	0.974***	0.957***
	(43.131)	(27.204)	(37.349)	(21.649)	(147.824)	(39.697)
Size	0.001***	0.001***	0.003***	0.005*	0.001**	0.001
	(8.772)	(2.653)	(10.104)	(1.706)	(2.544)	(1.592)
Leverage	-0.006***	-0.006***	-0.008***	-0.003	0.003	-0.001
	(-4.604)	(-3.273)	(-3.571)	(-1.296)	(1.185)	(-0.569)
Cash flow	0.011***	0.003	0.022***	-0.001	0.004	0.001
	(6.391)	(1.315)	(6.723)	(-0.230)	(0.925)	(0.286)
Sales growth	-0.005***	-0.000	-0.011***	-0.014***	-0.018***	-0.005***
	(-4.745)	(-0.163)	(-7.140)	(-5.901)	(-5.466)	(-3.722)
ln(GDP/capita)	-0.008***	-0.005	-0.015***	0.021***	0.031***	0.001
	(-4.112)	(-1.546)	(-4.038)	(3.123)	(3.891)	(0.151)
Constant	0.071***	0.041	0.131***	-0.160**	-0.274***	0.016
	(3.953)	(1.569)	(3.709)	(-2.101)	(-3.644)	(0.421)
Industry FE	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Quarter FE	Y	Y	Y	Y	Y	Y
Observations	54,129	16,082	15,454	54,732	16,436	15,482
Adjusted R-squared	0.754	0.417	0.604	0.943	0.957	0.945

Note(s): The table presents the results of model (2) based on CSR strength. The dependent variable is the performance variables including operating profitability (Columns 1-3) and market share (Columns 4-6). The full sample is separated into two subsamples based on median value of the CSR measure: CSR P75(P25) subsample includes with CSR measure above 75 percentile (below 25 percentile). Pandemic is a dummy variable that equals to one for quarters from 2020Q2 to 2022Q2, and zero otherwise. The main variable of interest is the interaction of Pandemic dummy with the trade credit. All regressions include industry, country and quarter fixed effects. t-statistics are reported in parentheses. ***, **, and * note significance at the 1%, 5%, and 10% levels, respectively.

Table 8: Performance by subsamples

	(1) Full Sample	(2) Developed	(3) Developing	(4) High EFD	(5) Low EFD
Panel A: Dependent variable: Operating Profitability					
Trade Credit x CSR x Pandemic	0.007**	0.013***	0.003	0.002	0.009**
	(2.060)	(3.783)	(0.868)	(0.470)	(2.123)
Panel B: Dependent variable: Market share					
Trade Credit x CSR x Pandemic	0.003***	0.004***	0.006**	0.003	0.007***
	(2.729)	(5.954)	(2.383)	(0.721)	(4.457)
Other Controls	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y
Quarter FE	Y	Y	Y	Y	Y

Note(s): The table presents the results of model (2) based on CSR strength. CSR Company is a dummy variable that equals to one for CSR scores above median and zero otherwise. Pandemic is a dummy variable that equals to one for quarters from 2020Q2 to 2022Q2, and zero otherwise. The main variable of interest is the 3-way interaction of CSR dummy, Pandemic dummy and trade credit. The dependent variable is the performance variables including operating profitability (Panel A) and market share (Panel B). All regressions include industry, country and quarter fixed effects. t-statistics are reported in parentheses. ***, **, and * note significance at the 1%, 5%, and 10% levels, respectively.